DOCUMENT RESUME

ED 092 168 IR 000 731

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TITLE BCN: On-Line Information Retrieval for the Masses?
PUB DATE May 74
NOTE 5p.; Paper presented at the American Society for Information Science Mid-Year Conference (Johnstown, Pennsylvania, May 16-18, 1974)

EDRS PRICE MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS *Cable Television; Educational Television; *Information Centers; Information Dissemination; Information Needs; Information Networks; *Information Retrieval; Information Science; *Information Systems; Library Networks; Library Services; *On Line Systems; State of the Art Reviews; Telecommunication
IDENTIFIERS *Coordinated Information Source

ABSTRACT

On-line information retrieval systems will spread beyond its narrow scope with the widespread development of interactive communication capability in connection with cable television. There is a possibility of far better attention to the information needs of the non-specialist with a coordinated information source. The major problems of such a coordinated information source would be: (1) organizing a vast miscellany of information for ready retrieval, (2) determining response forms for various inquiries; and (3) developing input documents for information not "published" in the usual manner. The world of library and information service ought to consider its place in what may become the most comprehensive on-line information storage and retrieval system ever envisioned, an interactive information utility involving cable television. (WH)

ED 092168

BCN: ON-LINE INFORMATION RETRIEVAL FOR THE MASSES?

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The mention of on-line information retrieval systems tends to bring to mind a teletype or CRT terminal providing an academically sophisticated inquirer with interactive access to a relatively narrowly-defined data base by means of a specific and comparatively standardized inquiry vocabulary. Considering the probable widespread development of interactive communication capability in connection with cable television, it appears that the world of library and information services should assess its position if the previously-described picture of an on-line information retrieval system changes to one of a television set with printout capability providing a wide spectrum of inquirers with interactive access to a very broadly-defined data base by means of natural language vocabulary. It is the purpose of this paper to raise several points in this connection for consideration and discussion.

The general nature of interactive cable television systems has been outlined by Baer.(1) Development of an information utility involving such systems has been discussed by Parker and Dunn.(2) Several applications of the "wired library" have been briefly described by The National Cable Television Association.(3) A complete account of the experience in this area of one public library has been provided by Dowlin.(4) An idea of potential printout capabilities of such systems has been suggested by Beer in one context (5), and by Miller in another.(6) An application of a combined on-line computer-microform system, described by Osinski and Thayer (7), suggests a possible approach to the mechanics of supplying varied informational input to an interactive cable television system, on a far more sophisticated technological level than that indicated by Dowlin in the source previously cited.

Much thought on library and information services via cable television seems to be premised on a single channel used a few hours a day by a library, or a

full time channel shared by a library and other governmental services. Superimposing existing organizational structures on an information utility might result in duplication of the existing fragmentation of effort in providing information on a wide variety of topics to large numbers of inquirers. The possibility of far better service to the information-needing non-specialist community would seem to exist through a coordinated effort not requiring the inquirer to sort out agencies in an attempt to find one to respond to his information need. This coordinated information source need not necessarily be a tax-supported agency, although existing libraries would seem to be a logical nucleus for such developments.

It seems unlikely that a single channel, or perhaps even multiple channels in a single system, would be sufficient to supply metropolitan community information needs on an interactive basis, once a coordinated service became established and widely known. Perhaps in densely populated areas, multiple channels should be dedicated during certain hours each day in each cable system operating in such areas, to interactive information supply from the coordinated information source. In smaller communities, perhaps one to three channels might be dedicated during certain hours for the interactive information service by the local coordinated source.

The coordinated information source would have at least three major problems: (1) organizing a vast miscellany of information for ready retrieval; (2) determining appropriate response forms for various inquiries; and (3) developing input documents for information not "published" in the usual manner. Each of these points would require extensive development, and would seem to be uniquely within the responsibility and competence of the world of library and information services.

Organizing the information might utilize existing classification and descriptor schemes as much as possible. However, a vast syndetic apparatus would be needed to relate the various current systems to each other, and to provide ready ties to the natural language of the consumers. The computer could probably trace the possibly complex path through such a syndetic apparatus from natural language to the actual address in the system of the needed information in most cases, with human intervention being provided as necessary. It should be noted that both "information" and "documents" should be traceable, inasmuch as inquiries might pertain to either or both.

It seems that at least three response forms should be provided, depending upon the nature of the information desired and the inquirer's purpose. Highly specific and brief factual answers probably could best be given by telephone, even though the inquiry had been made upstream in the cable television system. This would reduce the load on the cable system, and ought to satisfy the inquirer in many cases. A second category of response might be presentation of an item for short-term viewing on the inquirer's television screen. This might be suitable for specific facts not easily described orally, such as mathematical formulas, or identification of persons or places by brief display of pictures or maps, and similar information needs. A third category of response would be provision of actual hard copy by printout at the inquirer's television set. Presumably, almost any graphic material could be printed out, print or non-print, so long as the inquirer's set had the necessary capability.

Developing input documents for non-published information would seem to require a staff of writers and editors. It would probably be desirable to prepare this in a standard format so that it could be stored in microform and retrieved mechanically on demand. As with any store of documents and information,

material should be systematically removed on the basis of well-understood criteria, as well as added, to keep the store within manageable dimensions.

The world of library and information service ought to consider its place in what may become the most comprehensive on-line information storage and retrieval system ever envisioned, an interactive information utility involving cable television.

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